

### ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier	
Product Name	n-Propylammonium Iodide
Synonyms	PAI, Propanamine hydriodide
Chemical Name	Propylammonium iodide
Chemical Formula	C3H10IN
CAS No.	14488-45-0
EC No.	Not available.
Index No.	Not available.
REACH Registration No.	Not applicable.
1.2 Relevant identified uses of the sub	stance or mixture and uses advised against
Identified Use(s)	PC21 Laboratory chemicals, Research and development use only
1.3 Details of the supplier of the safety	/ data sheet
Company Identification	Ossila Limited
Address of Supplier	Solpro Business Park

	Windsor Street
	Sheffield
Postal code	S4 7WB, UK
Telephone:	+441142999180
E-mail	info@ossila.com
Office hours	08:00 - 17:00
1.4 Emergency telephone number	
Emergency Phone #	+44 (0) 20 3885 0382 (CHEMTREC)

Other Regions	Emergency Phone Number (CHEMTREC)	
Europe, Middle East, Africa	+44 20 3885 0382	
North America	+1 703 527 3887	
Central America	+52 55 8526 4930	
South America	+55 11 4349 1359	
Asia, India, and Oceania	+65 3163 8374	

#### **SECTION 2: HAZARDS IDENTIFICATION**

2.1 Classification of the substance or	
Regulation (EC) No. 1272/2008 (CLP)	Skin Irrit. 2: Causes skin irritation
	Eye Irrit. 2: Causes serious eye irritation STOT SE 3: May cause respiratory irritation
2.2 Label elements	According to Degulation (EC) No. 1979/2008 (CLD)
Product Name	According to Regulation (EC) No. 1272/2008 (CLP) n-Propylammonium Iodide
	1,
Hazard Pictogram(s)	$\wedge$
	$\mathbf{V}$
	GHS07
Signal Word(s)	Warning
Hazard Statement(s)	H315: Causes skin irritation H319: Causes serious eye irritation
	H335: May cause respiratory irritation
Precautionary Statement(s)	P302 + P352: IF ON SKIN: Wash with plenty of water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.
	Remove contact lenses, if present and easy to do. Continue rinsing.
	P312: Call a POISON CENTER or doctor if you feel unwell.
	P337 + P313: If eye irritation persists: Get medical advice/attention.
2.3 Other hazards	

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 2.4 Additional Information

Not applicable.



# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

			0.111111	
Hazardous ingredient(s)	CAS No.	EC No.	%W/W	Hazard Statement(s)
Propylammonium iodide	14488-45-0	Not available.	<= 100	Skin Irrit. 2 H315
				Eye Irrit. 2 H319
				STOT SE 3 H335
3.2 Mixtures	1		<b>I</b>	1
Not applicable.				
SECTION 4: FIRST AID MEASU	JRES			
4.1 Description of first aid mea	asures			
General Advice		ers should ensure the	y have taken ad	equate steps to protect themselves
	from exp	oosure (see Section 8	for recommende	ed personal protection equipment)
		is safety data sheet to		
Inhalation				able for breathing. Get medical
		ttention if you feel un		
Skin Contact				get medical advice/attention.
Eye Contact				s. Remove contact lenses, if present
Indestion		y to do. Continue rinsi		odattantian if you feel yours!
Ingestion 4.2 Most important symptoms			iet medical advid	ce/attention if you feel unwell.
			effects both a	ute and delayed, are included on
		(Section 2.2) and in S		are and delayed, are moldued on
4.3 Indication of any immediat				
······································		mptomatically.		
	•	. ,		
SECTION 5: FIREFIGHTING ME	EASURES			
5.1 Extinguishing media				
Suitable Extinguishing media	As annr	opriate for surrounding	n firo	
Unsuitable extinguishing media		opriate for surrounding		
5.2 Special hazards arising from			g 11 C.	
	Carbon			
	Nitroger	n oxides (NOx)		
	Hydroge	en iodide		
5.3 Advice for firefighters	Hydroge	en iodide		
5.3 Advice for firefighters	Fire figh	ters should wear com	plete protective	clothing including self-contained
5.3 Advice for firefighters	Fire figh		plete protective	clothing including self-contained
	Fire figh breathin	ters should wear com g apparatus.	plete protective	clothing including self-contained
SECTION 6: ACCIDENTAL REL	Fire figh breathin	ters should wear com g apparatus. S		clothing including self-contained
SECTION 6: ACCIDENTAL REL	Fire figh breathin LEASE MEASURE tective equipmen	ters should wear com g apparatus. S t and emergency pro	ocedures	
SECTION 6: ACCIDENTAL REL	Fire figh breathin LEASE MEASURE tective equipmen Follow s	ters should wear com g apparatus. S t and emergency pro afe handling advice a	ocedures nd personal prof	ective equipment recommendations
SECTION 6: ACCIDENTAL REL	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s	ters should wear com g apparatus. S t and emergency pro	ocedures nd personal prof	ective equipment recommendations
SECTION 6: ACCIDENTAL REL	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad	ocedures nd personal prot equate ventilatio	ective equipment recommendations
5.3 Advice for firefighters SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, prof 6.2 Environmental precautions	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s s Avoid re	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad	ocedures nd personal prot equate ventilatio	ective equipment recommendations
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re containment and	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad- elease to the environm cleaning up	ocedures nd personal prot equate ventilatio ent.	ective equipment recommendations n.
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re containment and Sweep of	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad elease to the environm cleaning up up spilled substance -	cedures nd personal prot equate ventilatio ent. avoid making du	ective equipment recommendations n. ust. Use vacuum equipment for
SECTION 6: ACCIDENTAL REL	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re containment and Sweep to collectin	ters should wear com g apparatus. S t and emergency pro safe handling advice a section 8). Provide ad- elease to the environm cleaning up up spilled substance - g spilt materials, when	ocedures nd personal prot equate ventilatio ent. avoid making du	ective equipment recommendations n.
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, prof 6.2 Environmental precautions 6.3 Methods and material for o	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s s Avoid re containment and Sweep to collectin local, sta	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad elease to the environm cleaning up up spilled substance -	ocedures nd personal prot equate ventilatio ent. avoid making du	ective equipment recommendations n. ust. Use vacuum equipment for
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, prof 6.2 Environmental precautions 6.3 Methods and material for o	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s s Avoid re containment and Sweep of collectin local, sta	ters should wear com g apparatus. S t and emergency pro safe handling advice a section 8). Provide ad- elease to the environm cleaning up up spilled substance - g spilt materials, when	ocedures nd personal prot equate ventilatio ent. avoid making du	ective equipment recommendations n. ust. Use vacuum equipment for
SECTION 6: ACCIDENTAL REL 5.1 Personal precautions, prot 6.2 Environmental precautions 5.3 Methods and material for o 5.4 Reference to other section	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re containment and Sweep to collectin local, sta	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad- elease to the environm cleaning up up spilled substance - g spilt materials, where ate or national legislat	ocedures nd personal prot equate ventilatio ent. avoid making du	ective equipment recommendations n. ust. Use vacuum equipment for
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re containment and Sweep to collectin local, sta	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad- elease to the environm cleaning up up spilled substance - g spilt materials, where ate or national legislat	ocedures nd personal prot equate ventilatio ent. avoid making du	ective equipment recommendations n. ust. Use vacuum equipment for
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions 6.3 Methods and material for c 6.4 Reference to other section SECTION 7: HANDLING AND S	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta See Also STORAGE	ters should wear com g apparatus. S t and emergency pro afe handling advice a section 8). Provide ad- elease to the environm cleaning up up spilled substance - g spilt materials, where ate or national legislat	ocedures nd personal prot equate ventilatio ent. avoid making du	ective equipment recommendations n. ust. Use vacuum equipment for
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section SECTION 7: HANDLING AND S 7.1 Precautions for safe hand	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta See Alse STORAGE	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13.	ncedures nd personal prot equate ventilatio ent. avoid making du e practicable. D ion.	ective equipment recommendations n. ust. Use vacuum equipment for
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section SECTION 7: HANDLING AND S 7.1 Precautions for safe hand	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Also TTORAGE	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13.	ocedures nd personal prot equate ventilatio ent. avoid making du re practicable. D ion. d contact with s	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section 6.4 Reference to other section	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Also STORAGE	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13. halation, ingestion, an ad area. Wear protection	cedures nd personal prot equate ventilatio ent. avoid making du e practicable. D ion. d contact with s ve clothing as pe	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, pro- 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section 6.4 Reference to other section	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Also STORAGE ling Avoid in ventilate Keep av	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13. halation, ingestion, an ad area. Wear protection	cedures nd personal prot equate ventilatio ent. avoid making du e practicable. D ion. d contact with s ve clothing as pe	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8.
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, prof 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section SECTION 7: HANDLING AND S 7.1 Precautions for safe handl Advice on safe handling Hygiene measures	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Also STORAGE ling Avoid in ventilate Keep av the end	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> tafe handling advice a section 8). Provide ad- elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13. halation, ingestion, an ed area. Wear protective vay from food and drir of workday.	cedures nd personal prot equate ventilatio ent. avoid making du e practicable. D ion. d contact with s ve clothing as pe	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8.
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, prof 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section SECTION 7: HANDLING AND S 7.1 Precautions for safe handl Advice on safe handling Hygiene measures	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Alse STORAGE ling Avoid in ventilate Keep av the end e, including any i	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> tafe handling advice a section 8). Provide ad- elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13. halation, ingestion, an ed area. Wear protective vay from food and drir of workday.	cedures nd personal prof equate ventilatio ent. avoid making du re practicable. D ion. d contact with s ve clothing as pe ik. Wash hands	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8. after handling, before breaks, and at
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, prof 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Alse STORAGE ling Avoid in ventilate Keep av the end e, including any i	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad- asection 8, 13. halation, ingestion, an ad area. Wear protective vay from food and drirr of workday. <b>ncompatibilities</b> a well-ventilated place	cedures nd personal prof equate ventilatio ent. avoid making du re practicable. D ion. d contact with s ve clothing as pe ik. Wash hands	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8. after handling, before breaks, and at
SECTION 6: ACCIDENTAL REL 5.1 Personal precautions, prof 5.2 Environmental precautions 5.3 Methods and material for o 5.4 Reference to other section SECTION 7: HANDLING AND S 7.1 Precautions for safe handle Advice on safe handling Hygiene measures 7.2 Conditions for safe storag Storage temperature	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Alse STORAGE Ling Avoid in ventilate Keep av the end e, including any i Store in Ambient	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad- asection 8, 13. halation, ingestion, an ad area. Wear protecti- vay from food and drirr of workday. <b>ncompatibilities</b> a well-ventilated place	cedures nd personal prot equate ventilatio ent. avoid making du re practicable. D ion. d contact with s ve clothing as pe k. Wash hands e. Keep containe	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8. after handling, before breaks, and at er tightly closed.
SECTION 6: ACCIDENTAL REL 5.1 Personal precautions, prof 5.2 Environmental precautions 5.3 Methods and material for o 5.4 Reference to other section 5.4 Reference to other section 5.5 There and the section of the section 5.5 There are a section of the section of the section 5.6 Reference to other section 5.7 Precautions for safe handle Advice on safe handling Hygiene measures 7.2 Conditions for safe storag Storage temperature	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Alse STORAGE Ling Avoid in ventilate Keep av the end e, including any i Store in Ambient	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13. halation, ingestion, an ed area. Wear protective vay from food and drirr of workday. <b>ncompatibilities</b> a well-ventilated place is air, light and moistu	cedures nd personal prot equate ventilatio ent. avoid making du re practicable. D ion. d contact with s ve clothing as pe k. Wash hands e. Keep containe	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8. after handling, before breaks, and at er tightly closed.
SECTION 6: ACCIDENTAL REL 5.1 Personal precautions, pro- 5.2 Environmental precautions 5.3 Methods and material for o 5.4 Reference to other section 5.4 Reference to other section 5.5 Section 7: HANDLING AND S 7.1 Precautions for safe handle Advice on safe handling Hygiene measures 7.2 Conditions for safe storag Storage temperature Storage life Incompatible materials	Fire figh breathin LEASE MEASURE tective equipmen Follow s (as per s s Avoid re collectin local, sta s See Also STORAGE ling Avoid in ventilate Keep aw the end e, including any i Store in Ambient Product	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad lease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, when ate or national legislat to Section 8, 13. halation, ingestion, an ed area. Wear protective vay from food and drirr of workday. <b>ncompatibilities</b> a well-ventilated place is air, light and moistures.	cedures nd personal prot equate ventilatio ent. avoid making du re practicable. D ion. d contact with s ve clothing as pe k. Wash hands e. Keep containe	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8. after handling, before breaks, and at
SECTION 6: ACCIDENTAL REL 6.1 Personal precautions, prof 6.2 Environmental precautions 6.3 Methods and material for o 6.4 Reference to other section SECTION 7: HANDLING AND S 7.1 Precautions for safe handl Advice on safe handling Hygiene measures 7.2 Conditions for safe storag	Fire figh breathin EASE MEASURE tective equipmen Follow s (as per s S Avoid re collectin local, sta S See Also STORAGE ling Avoid in ventilate Keep av the end e, including any i Store in Ambient Product inert gas None kn	ters should wear com g apparatus. <b>S</b> <b>t and emergency pro</b> afe handling advice a section 8). Provide ad- elease to the environm <b>cleaning up</b> up spilled substance - g spilt materials, where ate or national legislat to Section 8, 13. halation, ingestion, and ed area. Wear protective vay from food and drirr of workday. <b>ncompatibilities</b> a well-ventilated place is air, light and moistures. Bown.	cedures nd personal prot equate ventilatio ent. avoid making du e practicable. D ion. d contact with s ve clothing as pe ik. Wash hands e. Keep containe tre sensitive. Sto	ective equipment recommendations n. ust. Use vacuum equipment for ispose of contents in accordance with kin and eyes. Use only in a well- er section 8. after handling, before breaks, and at er tightly closed.



# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1	Control	parameters

8.1.1 Occupational Exposure Limits

<ul> <li>8.2 Exposure controls</li> <li>8.2.1. Appropriate engineering controls</li> <li>Ensure adequate ventilation and/or exhaust. A washing facility/water for eye and skin cleaning purposes should be present.</li> </ul>
skil dealing pulposes should be pleselit.
8.2.2. Personal protection equipment
Eye Protection         Wear eye protection with side protection tested and approved under appropriate government standards such as EN166 (EU).
Hand protection Handle with gloves. Gloves must be inspected prior to use and proper glove removal techniques should be used. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
Body protection Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a full- face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls.
Thermal hazards None known.
8.2.3. Environmental Exposure Controls Avoid release to the environment.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

9.1 Information on basic physical and	• •
Physical State	Solid: Powder/Crystals.
Colour	White.
Odour	Not known.
Odour threshold	Not known.
Melting point/freezing point	190 °C
Initial boiling point and boiling range	Not known.
Flammability	Not known.
Lower and upper explosion limit	Not known.
Flash Point	Not known.
Auto-ignition temperature (°C)	Not known.
Decomposition temperature (°C)	Not known.
рН	Not known.
Kinematic viscosity	Not known.
Solubility(ies)	Solubility (Water): Not known.
	Solubility (Other): Not known.
Partition coefficient: n-octanol/water (log value)	Not known.
Vapour pressure	Not known.
Density	Not known.
Relative density	Not known.
Relative vapour density	Not known.
Particle characteristics	Not known.
9.2 Other information	
	None.
SECTION 10: STABILITY AND REACTIV	/ITY

10.1 Reactivity	
	None anticipated.
10.2 Chemical Stability	
-	Stable under recommended storage conditions.
10.3 Possibility of hazardous	reactions
•	Not known.
10.4 Conditions to avoid	
	Not known.
10.5 Incompatible materials	
•	Not known.
10.6 Hazardous decompositi	on products
	In the event of fire: see Section 5

# SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effective	cts
Acute toxicity - Ingestion	No data available.
Acute toxicity - Skin Contact	No data available.
Acute toxicity - Inhalation	No data available.
Skin corrosion/irritation	No data available.
Serious eye damage/irritation	No data available.



Skin sensitization data	No data available.
Respiratory sensitization data	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive toxicity	No data available.
Lactation	No data available.
STOT - single exposure	No data available.
STOT - repeated exposure	No data available.
Aspiration hazard	No data available.
11.2 Information on other hazards	
11.2.1 Endocrine disrupting properties	
	None known.
11.2.2. Information on other hazards	
	None known.
SECTION 12: ECOLOGICAL INFORMAT	ΓΙΟΝ
12.1 Toxicity	
	No data available.
Toxicity - Aquatic invertebrates	No data available.
Toxicity - Fish	No data available.
Toxicity - Algae	No data available.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.
12.2 Persistence and Degradation	
5	Not known.
12.3 Bioaccumulative potential	
•	Not known.
12.4 Mobility in soil	
•	Not known.
12.5 Results of PBT and vPvB assess	ment
	This substance/mixture contains no components considered to be either persistent,
	bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative
	(vPvB) at levels of 0.1% or higher.
12.6 Endocrine disrupting properties	-
	Net he suit
	Not known.
12.7 Other adverse effects	Not known.
12.7 Other adverse effects	Not known.
	Not known.
SECTION 13: DISPOSAL CONSIDERAT	Not known.
SECTION 13: DISPOSAL CONSIDERAT	Not known. IONS
SECTION 13: DISPOSAL CONSIDERAT	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle
SECTION 13: DISPOSAL CONSIDERAT	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by
SECTION 13: DISPOSAL CONSIDERAT	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle
SECTION 13: DISPOSAL CONSIDERAT	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by
SECTION 13: DISPOSAL CONSIDERAT	Not known. TIONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or
SECTION 13: DISPOSAL CONSIDERAT	Not known. TIONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Disposal should be in accordance with local, state or national legislation.
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT	Not known.         TIONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT	Not known.         TIONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT	Not known.         TIONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA 15.1 Safety, health and environmental	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Disposal should be in accordance with local, state or national legislation. ION Not classified as hazardous for transport. TION regulations/legislation specific for the substance or mixture
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA 15.1 Safety, health and environmental European Regulations - Authorisations a	Not known.         TIONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Disposal should be in accordance with local, state or national legislation. ION Not classified as hazardous for transport. TION regulations/legislation specific for the substance or mixture
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation	Not known.         TIONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances	Not known.         TIONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT IS.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the	Not known.         TIONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT IS.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances,	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances,	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Community Rolling Action Plan (CoRAP)	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: ANNEX XIV list of subject to subject to authorisation REACH: ANNEX XIV lis	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Disposal should be in accordance with local, state or national legislation. TON Not classified as hazardous for transport. TION regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed Not listed Not listed Not listed Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: ANNEX XIV Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Community Rolling Action Plan (CoRAP) Regulation (EC) N° 850/2004 of the European Parliament and of the Council	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Disposal should be in accordance with local, state or national legislation. TON Not classified as hazardous for transport. TION regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed Not listed Not listed Not listed Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT ISTA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Community Rolling Action Plan (CoRAP) Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed         Not listed         Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT IS.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Community Rolling Action Plan (CoRAP) Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Regulation (EC) N° 1005/2009 on	Not known. TONS Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Disposal should be in accordance with local, state or national legislation. TON Not classified as hazardous for transport. TION regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed Not listed Not listed Not listed Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA 15.1 Safety, health and environmental European Regulations - Authorisations a Candidate List of Substances of Very High Concern for Authorisation REACH: ANNEX XIV list of substances subject to authorisation REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Community Rolling Action Plan (CoRAP) Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer	Not known. <b>IONS</b> Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation. <b>ION</b> Not classified as hazardous for transport. <b>TION</b> regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed         Not listed         Not listed         Not listed         Not listed         Not listed
SECTION 13: DISPOSAL CONSIDERAT 13.1 Waste treatment methods 13.2 Additional Information SECTION 14: TRANSPORT INFORMAT IATA/IMO/RID/ADR SECTION 15: REGULATORY INFORMA	Not known.         TONS         Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.         Disposal should be in accordance with local, state or national legislation.         ION         Not classified as hazardous for transport.         TION         regulations/legislation specific for the substance or mixture and/or Restrictions On Use Not listed         Not listed         Not listed         Not listed         Not listed



#### concerning the export and import of hazardous chemicals **National regulations** Other **15.2 Chemical Safety Assessment**

A REACH chemical safety assessment has not been carried out.

# SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

Not known.

#### LEGEND

Disclaimers

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS : Chemical Abstracts Service
CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of
substances and mixtures
DNEL : Derived No Effect Level
EC : European Community
EINECS : European Inventory of Existing Commercial Chemical Substances
IATA : International Air Transport Association
IBC : Intermediate Bulk Container
ICAO : International Civil Aviation Organization
IMDG : International Maritime Dangerous Goods
LTEL : Long term exposure limit
PBT : Persistent, Bioaccumulative and Toxic
PNEC : Predicted No Effect Concentration
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
UN : United Nations
vPvB : very Persistent and very Bioaccumulative
Information contained in this publication or as otherwise supplied to Users is believed
to be accurate and is given in good faith, but it is for the Users to satisfy themselves
of the suitability of the product for their own particular purpose. Ossila Limited gives
no warranty as to the fitness of the product for any particular purpose and any
implied warranty or condition (statutory or otherwise) is excluded except to the extent
that exclusion is prevented by law. Ossila Limited accepts no liability for loss or
damage (other than that arising from death or personal injury caused by defective

product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.